10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATP5G1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22100c

Product Information

Application	WB, E
Primary Accession	P05496
Other Accession	P32876, Q9CR84, A1XQS5, Q06645, P17605, P07926, Q06055, P56383, Q5RAP9, Q06646, Q06056, Q3ZC75, P48201, P56384, Q5RFL2, Q71S46
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Human, Mouse, Pig, Rat, Sheep
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55917
Calculated MW	14277

Additional Information

Gene ID	516
Other Names	ATP synthase F(0) complex subunit C1, mitochondrial, ATP synthase lipid-binding protein, ATP synthase proteolipid P1, ATP synthase proton-transporting mitochondrial F(0) complex subunit C1, ATPase protein 9, ATPase subunit c, ATP5G1
Target/Specificity	This ATP5G1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 41-71 amino acids from the Central region of human ATP5G1.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ATP5G1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP5MC1 (HGNC:841)

Function	Subunit c, of the mitochondrial membrane ATP synthase complex (F(1)F(0) ATP synthase or Complex V) that produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain (Probable). ATP synthase complex consist of a soluble F(1) head domain - the catalytic core - and a membrane F(1) domain - the membrane proton channel (PubMed:37244256). These two domains are linked by a central stalk rotating inside the F(1) region and a stationary peripheral stalk (PubMed:37244256). During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation (Probable). With the subunit a (MT- ATP6), forms the proton-conducting channel in the F(0) domain, that contains two crucial half-channels (inlet and outlet) that facilitate proton movement from the mitochondrial intermembrane space (IMS) into the matrix (PubMed:37244256). Protons are taken up via the inlet half- channel and released through the outlet half-channel, following a Grotthuss mechanism (PubMed:37244256).
Cellular Location	Mitochondrion membrane; Multi-pass membrane protein

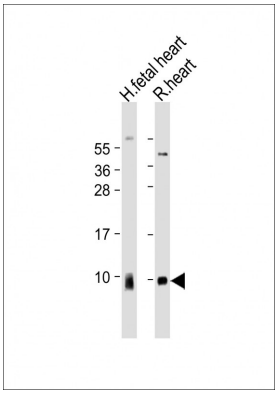
Background

Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Part of the complex F(0) domain. A homomeric c-ring of probably 10 subunits is part of the complex rotary element.

References

Dyer M.R.,et al.Biochem. J. 293:51-64(1993).
Higuti T.,et al.Biochim. Biophys. Acta 1173:87-90(1993).
Wiemann S.,et al.Genome Res. 11:422-435(2001).
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Farrell L.B.,et al.Biochem. Biophys. Res. Commun. 144:1257-1264(1987).

Images



All lanes : Anti-ATP5G1 Antibody (Center) at 1:2000 dilution Lane 1: human fetal heart lysate Lane 2: rat heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 14 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.